REMARKS

I.   INTRODUCTION

This Amendment is a full and timely response to the Non-Final Office Action mailed July 30, 2007. Upon entry of this amendment, claims 1-13 and 27-29 will be pending in this application. Claim 1 has been amended to clarify the invention claimed by claim 1, and claim 13 has been amended to correct a typographical error. Claims 14-26 have been cancelled. New claims 27-29 have been added and are fully supported by the specification, pages 10 and 17-18, and no new material has been added. The rejections have been traversed, and Applicants respectfully submit that the claims are in condition for allowance and request that the rejection be withdrawn.

II.   CLAIM REJECTIONS – 35 U.S.C. 103

The Office Action rejected Claim 1-13 under 35 U.S.C. § 103(a) as being unpatentable over *Ricciulli* (U.S. Patent No. 6,473,405) in view of *Phillipi, et al.* (U.S. Publication No. 2004/0044761). This rejection is, respectfully, traversed.

A.   *Ricciuilli*

The Office Action stated that *Ricciulli* taught each element of claim 1, except "identifying at least one convergence point, wherein the convergence point is a common node for the at least two paths and associating the convergence point with the destination address space." In actuality, *Ricciulli* teaches, "[a]n overlay network of alternate routing mechanisms is constructed on top of the existing Internet routing mechanisms to find and

exploit available resources." (col. 3, lines 43-45.) *Ricciulli* teaches away from the invention recited in the claims in several ways.

Ricciulli teaches the construction of an entirely separate, overlay network, which is not recited by applicants' claims. *Ricciulli* is directed to endpoint to endpoint analysis and optimization of multiple paths over a network, but it does not determine the convergence point of multiple paths that may be routed over or pass through multiple networks. (*See* specification, para. [0034].) The specification also, specifically, states that end to end routing is *not preferred*, stating, "comparing end-to-end measurements of two paths that share a significant non-diverse section does not provide a valid comparison because the portion of the measurements related to the non-diverse section distorts the comparison." (Specification, [0034].) "The descriptive part of the specification aids in ascertaining the scope and meaning of the claims inasmuch as the words of the claims must be based on the specification." *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448,452 (Fed. Cir. 1985). Therefore, *Ricciuilli* does not and *cannot* address the same problem as the claimed invention and makes no mention of a plurality of paths that become non-diverse *after* a convergence point, which the Office Action acknowledges is not shown. Respectfully, the Office Action does not specify reasoning for expanding the teachings of *Ricciulli* to the claimed invention. Further, one of ordinary skill in the art would not have sought to combine *Ricciulli* with another reference because the specification of the application explicitly states that the *Ricciulli* method is the one it is avoiding because of its inconsistencies. (*See KSR*

International Co. v. Teleflex, Inc., 127 S.Ct. 1727, 1741 (2007) (stating that, "it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the new invention does."))

B.   ***Ricciulli* and *Phillipi***

The Office Action stated that "[i]t would have been obvious to one of ordinary skill in the art at the time of the invention to combine *Phillipi's* convergence point to *Ricciiulli*[sic] on-demand overlay routing to optimize connection." Respectfully, the "last common node" taught by *Phillipi* is not the convergence point recited by the claims, and the combination of *Ricciulli* and *Phillipi* would not yield the result that the Office Action claims.

Claim 1, as amended, recites that, "the convergence point is a common node for the at least two paths, said two paths being non-diverse from the convergence point *to the destination address space*[.]" The plurality of paths over the Internet or multiple public networks share the same path and sequence of nodes *after* the convergence point. The last hop of *Phillipi* is part of a local network and before transmission over the public network, and is only concerned with optimization from the source to the last common hop, but the convergence point method determines the entire transmission path through to the destination. In addition, new claim 27 recites that the plurality of paths identified by the method are over at least one public Internet Protocol network, such as the Internet or multiple service providers. (*See* specification, para. [0089].) *Phillipi* is directed to a local network connected to a public network and considers the public network a "black box." Its "last hop" is just

prior to the "black box", not a node that is a part of the public network path. The last common node is the last node of a local network that a transmission traverses before it leaves the local network to be delivered to its destination through the Internet or other public network. The present invention also may relate to multiple service providers, which may encompass part of the Internet, but the *Phillipi* reference is only directed to a local network from the last access point inward. (*Id.*)

Paragraph 0053 states that, "for public communications on the Internet, the optimization endpoint or destination may be a network device that is found to be the last node or hop that a data packet consistently traverses *before it is sent on one of the many possible routes through the Internet.*" (*emphasis added.*) Further, "this testing algorithm treats the Internet as a 'black box' from the edge of the network inwards, versus the carrier's traffic engineering methods that apply to the core of the network facing outwards." (*Phillipi,* paragraph 0053.) The method of *Phillipi* uses test destination addresses sent from multiple sources through the local network to determine the most common last hop before the transmission is routed over the public network. With this method, the number of "hops" through the local network is optimized without reference or attention paid to a destination space. The *Phillipi* protocol, therefore, is inward-looking to optimize a local, non-public network.

The combination of the two references would only result in the network of *Phillipi,* logically, in "front" of the overlay network of *Ricciulli.* The combination would only

optimize the internal path from the source to the last hop, then a separately optimized network path from the last hop of *Phillipi* to the destination. This is not the same as optimizing a plurality of paths from the source through the entire network, which may be multiple networks, to the destination. The convergence point is not merely a mid-point along the route, as the last common hop would be in this combination, but where the multiple paths converge and become non-diverse.

New claim 27 recites that the plurality of paths of the claimed invention pass through multiple networks, and the claimed invention searches for a convergence point for an address space, past which the plurality of paths become non-diverse. *Phillipi* treats the network after the last hop as a "black box" and is unconcerned with the route beyond the last hop to the destination. The claimed invention, as recited, is directed to analyzing paths from the source through the entire path to the destination, and the convergence point is the point after which the plurality of paths toward a destination space become non-diverse. The convergence point method, therefore, is opposite of *Phillipi* – the claimed method looks outward and over multiple networks and does not simply optimize the route to a public network.

Dependent claims 2-13 are patentable for at least the reasons discussed above. As explained above, the combination of *Ricciulli* and *Phillipi* is improper, and it does not teach the convergence point of claim 1. Therefore, because the dependent claims have the same limitations as their independent claim, claims 2-13 are patentable for at least the same

reasons as discussed for claim 1. New claims 28 and 29 depend from claim 27, and are patentable for at least the reasons discussed above with respect to claims 1 and 27.

Applicants respectfully submit that the claims are not in condition for allowance and request that the rejections be withdrawn.

III.   INTERVIEW REQUEST

Applicants respectfully submit that, in addition to the arguments above, an interview would also be beneficial explaining the distinctions between the cited combination and the invention recited by the claims. The undersigned attorney will contact the Examiner in the next two weeks to set up an appropriate time. If the Examiner plans to continue examination of the application prior to said interview, Applicants respectfully request a call to the number below to further discuss this matter.

IV.   CONCLUSION

Claims 1-13 and 27-29 are pending in the application. The applicants respectfully submit that claims 1-13 and 27-29 are currently allowable. The Examiner is invited and encouraged to contact the undersigned attorney of record at (404) 745-2434 if such contact will facilitate a Notice of Allowance for claims 1-13 and 27-29. Applicants respectfully request a one month extension of time for filing this response, and, the Commissioner is hereby authorized to charge the extension fee and any additional fees, any deficiency, or credit any overpayment, to Deposit Account No. 11-0855.

Respectfully submitted,

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